

DETAILED ACTION

Response to Amendment

Amendments and response received July 23, 2009 have been entered. Claims 1, 3-9, 11-14, 22, 24-30 and 32-35 are currently pending in this application. Claims 1, 3, 13, 14, 22 and 24 have been amended. Claims 34 and 35 have been canceled by this amendment. Amendments and response are addressed hereinbelow.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Douglas Holtz (33,902) on August 27, 2009.

In claim 1, change:

"the timing correcting unit detects a timing at which a measured value having a largest change of measured light quantity value between two adjacent sampling points in a vicinity of a specified timing is measured, as a start timing at which..."

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to

"the timing correcting unit detects a timing ~~at which~~ of measurement of a measured value having a largest change of measured light quantity value between two adjacent sampling points in a vicinity of a specified timing ~~is measured~~, as a starting timing at which...".

In claim 3, change:

"...the timing correcting unit detects a timing at which a measured value near to an intermediate light quantity value of measured values in a vicinity of a specified timing is measured, as a start timing at which..."

to

"the timing correcting unit detects a timing ~~at which~~ of measurement of a measured value near to an intermediate light quantity value of measured values in a vicinity of a specified timing ~~is measured~~, as a starting timing at which...".

In claim 13, change:

"...a timing correcting unit for detecting a timing at which a measured value having a largest change of measured light quantity value between two adjacent sampling points in a vicinity of a specified timing is measured, as a start timing at which..."

to

"...a timing correcting unit for detecting a timing ~~at which~~ of measurement of a measured value having a largest change of measured light quantity value between two adjacent sampling points in a vicinity of a specified timing ~~is measured~~, as a starting timing at which...".

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In claim 14, change:

“...a timing correcting unit for detecting a timing at which a measured value near to an intermediate light quantity value of measured values in a vicinity of a specified timing is measured, as a start timing at which...”

to

“...a timing correcting unit for detecting a timing ~~at which~~ of measurement of a measured value having a largest change of measured light quantity value between two adjacent sampling points in a vicinity of a specified timing ~~is measured~~, as a starting timing at which...”.

In claim 22, change:

“...a timing at which a measured value having a largest change of measured light quantity value between two adjacent sampling points in a vicinity of a specified timing is measured, as a start timing at which...”

to

“...a timing ~~at which~~ of measurement of a measured value having a largest change of measured light quantity value between two adjacent sampling points in a vicinity of a specified timing ~~is measured~~, as a starting timing at which...”.

In claim 24, change:

“...a timing at which a measured value near to an intermediate light quantity value of measured values in a vicinity of a specified timing is measured, as a start timing at which...”

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to

“...a timing ~~at which~~ of measurement of a measured value near to an intermediate light quantity value of measured values in a vicinity of a specified timing ~~is measured~~, as a start timing at which ...”.

Information Disclosure Statement

The information disclosure statement received July 23, 2009 is in compliance with §1.97 and is thus considered by Examiner.

Claim Objections

In light of the amendment to claim 3, Examiner withdraws previous grounds of objection.

Double Patenting

In light of the amendments to claims 13 and 14 and further clarification regarding the plural results from light quantities which are utilized, Examiner withdraws preliminary objection to the claims. Claims 34 and 35 have been canceled; therefore the previous objections have been rendered moot.

Allowable Subject Matter

2. Claims 1, 3-9, 11-14, 22, 24-30 and 32-35 are allowed.

3. The following is an examiner's statement of reasons for allowance:

The examiner found neither prior art cited in its entirety, nor based on the prior art, found any motivation to combine any subsequent prior art which teaches an image forming apparatus and method comprising an image forming unit, a sensor for measuring a reflected light quantity, a gradation correcting unit, a timing correcting unit for detecting a shift of measurement timing at which the correcting image is measured by the sensor, wherein the timing correcting unit detects a timing of measurement of measured value having a largest change of measured light quantity value between two adjacent sampling points in a vicinity of a specified timing as a start timing at which a measurement of a head part of the gradation pattern has actually been started or a timing of measurement of a measured value near to an intermediate light quantity value of measured values in a vicinity of a specified timing as a start timing at which a measurement of a head part of the gradation pattern has actually been started, wherein the timing correcting unit detects a shift between a specified timing in advance and the start timing as the shift of the measurement timing.

The closest prior art, Hirata et al (US 6462838 B1) teaches an image forming apparatus for correcting gradations of an output image utilizing a sensor for measuring reflected light quantity.

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Additional art, Tanaka et al (US 5754920) teaches correcting the shift of measurement timing of the sensor but fails to do so utilizing a largest change of measured light quantity value between two adjacent sampling points in a vicinity of a specified timing as a start timing at which a measurement of a head part of the gradation pattern or a measured value near to an intermediate light quantity value of measured values in a vicinity of a specified timing as a start timing at which a measurement of a head part of the gradation pattern has actually been started.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMARES WASHINGTON whose telephone number is (571) 270-1585. The examiner can normally be reached on Monday thru Friday: 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, King Poon can be reached on (571) 272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/King Y. Poon/
Supervisory Patent Examiner, Art Unit 2625

/Jamares Washington/
Examiner, Art Unit 2625

/J. W./
Examiner, Art Unit 2625

August 27, 2009